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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/075,375	05/07/1998	HARRY Y. YAMAMOTO	CGNE119-2US	3584

27161 7590 07/30/2003

MONSANTO COMPANY
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EXAMINER

NELSON, AMY J

ART UNIT PAPER NUMBER

1638

DATE MAILED: 07/30/2003

37

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/075,375

Applicant(s)

YAMAMOTO ET AL.

Examiner

Amy Nelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2002 and 04 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 3-5,9-11 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 3-5,9-11 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Drawings

1. The drawings filed 10/12/01 are objected to by the Draftsperson. Please see attached PTO-948, Draftsperson's Drawing Review.

Sequence Listing

2. The sequence listing filed 4/4/03 has been entered.

Claim Rejections - 35 USC § 112

3. Claims 3-5, 9-11, and 16-22 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

Applicant fails to point to support for the following newly added claim limitations:

Claim 3 – “approximately 43 kilodaltons.”

Claim 17 – “nucleotides 235 to 1653 of SEQ ID NO:1” and “nucleotides 235 to 610 of SEQ ID NO:1.”

Claim 18 – “nucleotides 42 to 1475 of SEQ ID NO:3” and “nucleotides 42 to 444 of SEQ ID NO:3.”

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Claim 19 – “nucleotides 45 to 1430 of SEQ ID NO:5” and “nucleotides 45 to 384 of SEQ ID NO:5.”

Claim 20 – “amino acids 1 to 125 of SEQ ID NO:2” and “amino acids 126 to 473 of SEQ ID NO:2.”

Claim 21 – “amino acids 1 to 134 of SEQ ID NO:4” and “amino acids 135 to 478 of SEQ ID NO:4.”

Claim 22 – “amino acids 1 to 113 of SEQ ID NO:6” and “amino acids 114 to 462 of SEQ ID NO:6.”

Applicant is required to point to support for the claimed regions of the nucleic acid or amino acid sequences, or to delete the NEW MATTER in response to this rejection.

4. Claims 3-5 and 9-11 remain rejected and new Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is repeated for the reasons of record as set forth in the Official action mailed 3/12/02. Applicant's arguments filed 9/11/02 have been fully considered but they are not persuasive.

Applicant asserts that the concern regarding the incompatible lengths of the claimed nucleic acid and amino acid sequences is moot in view of the submitted substitute sequence listing, wherein the lengths of the amino acid sequences of SEQ ID NO:2, 4 and 6 are 473, 478, and 462, respectively, corresponding to the sequences depicted in Figures 1-4 (response, p. 4-5). However, the lengths of the amino acid sequences of SEQ ID NO:2, 4, and 6 in the sequence

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listing filed 4/4/03 are each 1412 amino acids. Therefore the issue is not moot. Submission of a new corrected sequence listing is required to resolve this issue. Furthermore, applicant has at best described three nucleic acid sequences that encode a plant violaxanthin de-epoxidase with a molecular weight of approximately 43 kilodaltons. Applicant has not described other nucleic acid sequences from the myriad of potential source plant species that encode plant violaxanthin de-epoxidase of the ascribed molecular weight, particularly those that are structurally distinct from the disclosed nucleic acid sequences. Hence, Applicant has not satisfied the written description requirement.

5. Claims 3-5 and 9-11 remain rejected and new Claims 16-22 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This rejection is repeated for the reasons of record as set forth in the Official action mailed 3/12/02. Applicant has not specifically responded to this rejection in the response filed 9/11/02, and therefore the rejection is maintained.

6. Claims 3-5, and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

At Claim 3, line 2, it is recommended that "joined to" be replaced with -and-, and at line 1, after "comprising" -in operable linkage- be inserted for clarity.

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At Claim 4, line 3, and Claim 9, line 2, it is recommended that before "in the order of transcription" -in operable linkage- be inserted for clarity.

Claim 5 is indefinite because it is unclear where the translation initiation region and the plastid translocation sequence are located with respect to the other components of the construct.

At Claim 10, it is recommended that before "plant" -transformed- be inserted for clarity.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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7. Any inquiry concerning this communication should be directed to Amy Nelson at telephone number (703) 306-3218. The examiner can normally be reached Monday-Friday from 8:30 am to 5:00 pm.

The fax number for TC 1600 is (703) 872-9306 (before final) or (703) 872-9307 (after final).

Any inquiry of a general nature, relating to the status of this application or if a paper has not been received, should be directed to TC 1600 Customer Service at (703) 308-0198.



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